

WHAT IS CLAIMED IS:

1. A two-phase excitation linear motor comprising
two single coils forming one pole to continuously generate magnetic
forces with a predetermined phase interval thereon, the magnetic forces linearly
driving a moving body, wherein

 said two single coils are individually formed as an approximately
rectangular ring-like shape where two sides of said rectangle opposing to each
other function as a pair of effective conductors for contributing to generating a
thrust force for the moving body of the linear motor, and the other two sides
opposing to each other function as a pair of connecting conductors for
connecting between said effective conductors,

 parts close to ends of said effective conductors are bent at an
approximately right angle with respect to a coil plane such that said pair of
connecting conductors are offset from the coil plane, and extend in parallel with
said coil plane where the coil plane is defined as a plane including individual
centers of said pair of effective conductors, and

 the two single coils are integrated into one body such that one of the pair
of effective conductors of one single coil is interposed between the pair of
effective conductors of the other single coil while the individual single coils are
combined such that the offset directions of the connecting conductors of the
individual single coils are opposed to each other in a direction perpendicular to a
traveling direction.

2. The two-phase excitation linear motor according to claim 1 wherein a
transverse section of said connecting conductors is in an approximately
trapezoidal shape including parallel sides approximately perpendicular to said

coil plane, and a tilted side opposing to said coil plane and being tilted in a direction opposite to the direction of the offset of the connecting conductors in said extending state.

3. The two-phase excitation linear motor according to claim 1 wherein two or more integrated two-phase single coils are placed in separate positions for multi-polarization.

4. The two-phase excitation linear motor according to claim 2 wherein two or more integrated two-phase single coils are placed in separate positions for multi-polarization.

5. A two-phase excitation linear motor, comprising
two single coils forming one pole to continuously generate magnetic forces time a predetermined phase interval thereon, said two single coils being placed separately, the magnetic forces linearly driving a moving body, wherein
said single coils individually comprise two sub-single coils formed as an approximately rectangular ring-like shape where two sides of said rectangle opposing to each other function as a pair of effective conductors for contributing to generating a thrust force for the moving body of the linear motor, and the other two sides opposing to each other function as a pair of connecting conductors for connecting between said effective conductors,

each of the single coils comprises two sub-single coils each formed as an approximately rectangular ring-like shape where two sides of the rectangle opposing to each other function as a pair of effective conductors for contributing to generating a thrust force for the moving body of the linear motor, and the other two sides opposing to each other function as a pair of connecting conductors for connecting between the effective conductors, and

the two sub-single coils are integrated into one body such that one of the pair of effective conductors of one sub-single coil is interposed between the pair of effective conductors of the other sub-single coil, while the two sub-single coils are connected to each other in series to form one connected-single coil and the two connected-single coils are separately arranged as said single coil for forming one pole.